AIDS

Automatic Intelligent Delivery System
Team bhayanak_maut

Examining the problem

- Cases of theft/non-payment on delivery of items

- Cases of dacoity/robbery (by parties other than customer and seller)

Machine Learning

- Relations between data and output are difficult to figure out by hand

- Automate the formation of a hypothesis by using sample data
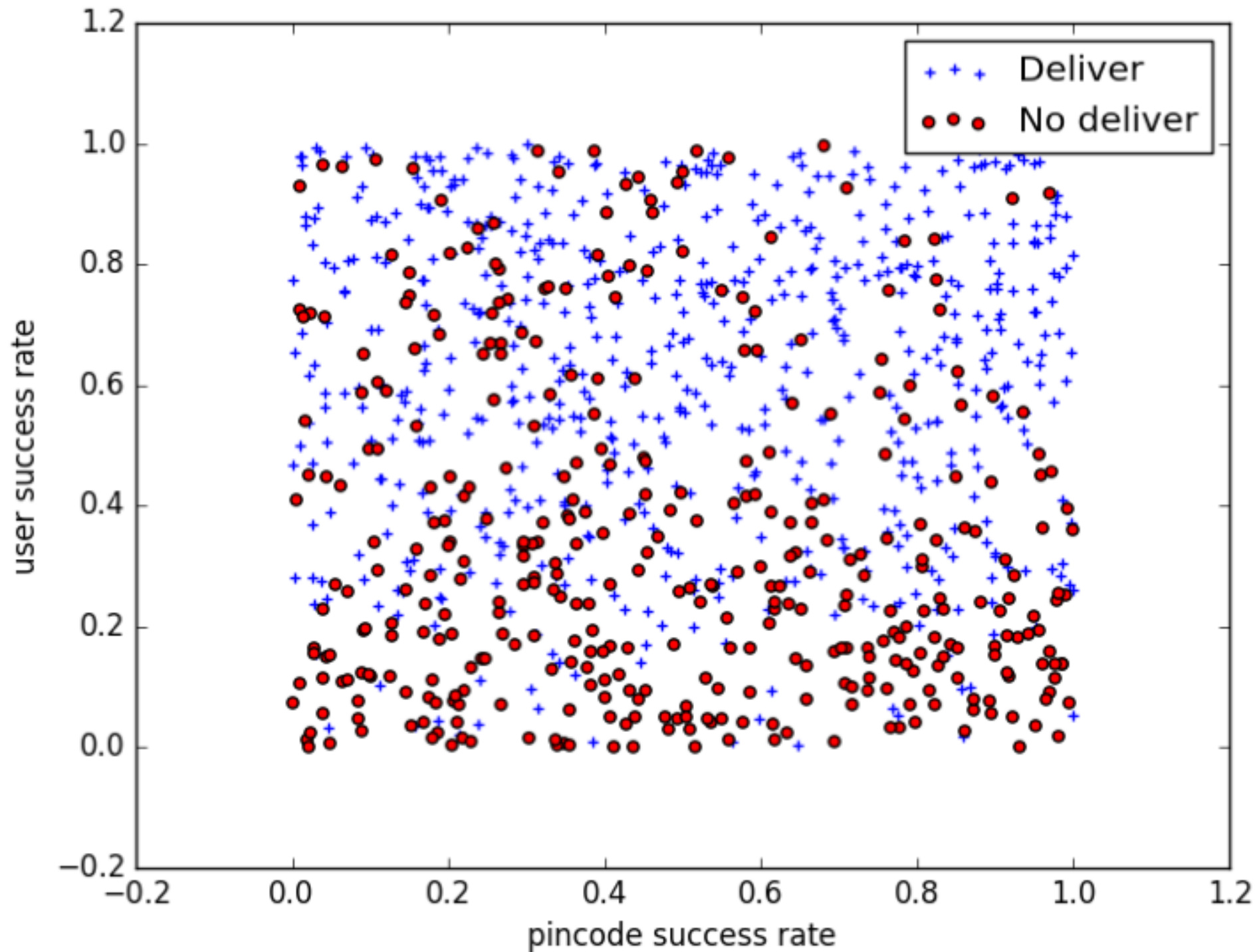
Pick parameters

Two main themes:

- Working with data about history of user placing order

- Working with data about history of area where item is to be shipped

Generating data

- Make some notions about when you deliver

- Create data using these notions, add some noise to make it align with real world scenarios

Visualising the data

Gradient Descent

$$J(\theta, X, y) = \frac{-1}{m} \cdot \sum_{i=1}^{m} ((y) \cdot \log(sig(\theta' \cdot x^{(i)})) + (1 - y) \cdot \log(1 - sig(\theta' \cdot x^{(i)})))$$

$$\frac{\partial J}{\partial \theta_j} = \frac{1}{m} \cdot \sum_{i=1}^{m} (sig(\theta' \cdot x^{(i)}) - y) \cdot x_j^{(i)}$$

Testing

- Broke randomly generated test set into two parts, 70% for training the algorithm, and 30% for testing

- Encouragingly, achieved 95% accuracy on test set